

ELY
RURAL DISTRICT COUNCIL.

REPORT

For the Year 1895

BY

BUSHELL ANNINGSON, M.D., M.A.

UNIVERSITY LECTURER IN MEDICAL JURISPRUDENCE,
FELLOW SANITARY INSTITUTE, ASSOCIATE KING'S
COLLEGE, LONDON, &c., &c.

Medical Officer of Health.

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REPORT.

I BEG leave to communicate for the information of the Rural District Council my sanitary report for the year 1895.

The total number of deaths which have been registered is 196, but this number must be corrected by the addition of deaths of persons belonging to the district which have occurred outside its boundary, viz.: in the Workhouse (situate within the urban district of the City of Ely) 14; in the County Asylum, at Fulbourn, 5; in Addenbrooke's Hospital, Cambridge, 5; making a corrected total of 220, which on the census return of 1891 gives an annual death-rate of 17·1 per thousand living.

Vital Statistics.
Death-rate.

The total number of births registered is 363, equal to a birth-rate of 28·3 per thousand living per annum.

Birth-rate.

The ratio of deaths under one year of age to 1000 registered births is 107.

The deaths registered as due to zymotic disease are:—from diphtheria 1; typhoid fever 2; diarrhœa 5; whooping cough 2; and measles 4; total 14; equal to an annual death-rate from these diseases of 1·0 per thousand living.

Zymotic
Death-rate.

The deaths which properly belong to each district are after distribution as follows:—

Sub-District.		Share of Workhouse.	Asylum.	Addenbrooke's Hospital.	Registered Deaths.	Total.
Haddenham	...	3	1	1	56	61
Sutton	...	2	2	1	38	43
Littleport	...	5	2	2	72	81
Downham	...	4	...	1	30	35
Entire District	...	14	5	5	196	220

The death-rate and birth-rate of Haddenham are respectively 17·7 and 30·1; those of the other divisions are respectively Sutton 13·2 and 23·0; Littleport 19·1 and 30·4; Downham 18·6 and 29·3.

*DISEASE INCIDENCE AND MEASURES TAKEN TO
ARREST ITS SPREAD.*

In regard to disease incidence, it is somewhat remarkable that while the mortality due to infectious disease is slightly higher than that for the year 1894 :—1·0 against 0·85, the incidence of the diseases
Scarlatina. of this group is very much less :—25 against 55. Scarlatina especially has been much less prevalent than it was in the year 1894, only four cases having been notified, as compared with sixteen of that year. In the year 1893, I may remark, there were sixty-eight cases.

Three cases in two households occurred at the beginning of the year at Wisbeach Road, Littleport ; the first two cases in one household could not be satisfactorily accounted for, but were probably imported ; the third case was imported from a distinct source outside the district.

One case occurred at Witchford in August and was probably imported, but it could not be satisfactorily traced.

Diphtheria. Six cases of diphtheria occurred in three families at Witchford ; three which occurred in one household during February could not be traced to any antecedent case, but it is worthy of remark that diphtheria was present in this village in the last month of 1893 and the first two months of 1894. Three cases occurred at the beginning of December in two households near together and there was evidence of intercommunication between them, but the origin of the initial case could not be satisfactorily traced, except to dormant infectious influence left by the cases in February.

Two cases in one household occurred at Sutton in a locality where diphtheria has appeared in former years.

One case occurred at Haddenham in December and was of doubtful character ; there was, however, history of previous throat illness in the household.

Measles. Measles have prevailed at Coveney and Littleport and caused four deaths ; the schools were closed for varying periods according to the incidence of the disease.

Typhoid Fever. Eight cases of typhoid fever have occurred in six households at Littleport from time to time during the year ; the first four cases occurred during January, February and March, along the riverside,

where typhoid fever is always recurring. There seems no better explanation for the appearance of these cases than that the river water, which is the only supply, except rain water here and there, was the vehicle of infection. This suggestion is supported in a measure by the fact that the cases lower down the stream have followed those above ; a similar sequence has impressed my attention for several years past. The fifth case occurred in May at Sherwood Cottages, Silt Road. In this case the water supply was not derived directly from the river, but from a public pump at the end of Silt Road, to which the water is brought from Holme's Lode (an arm of the river) at Quay Hill, by conduit pipes, stated to have been badly laid and jointed, and passing in its course many sources of excremental pollution. There is a filtering area, which has been proved to be quite inoperative. Under the above circumstances the water may be even worse at the point of delivery than at the source. The next two cases occurred during September and October, in the house of the manager of the Forage Factory ; the daughter of the household was first assailed and subsequently her father. The family had recently come from London to take charge of the works and obtained their water supply directly from the river, instead of from the filtered public supply in their neighbourhood. The sanitary conditions in the neighbourhood of the house were found to be very faulty and subsequently remedied. The last case occurred at a distant part of the parish, where the sanitary conditions of the household were very bad, and the family drank river water, which, however, was stated to have been boiled before using ; on the other hand, the young man, who was the subject of the disease, had been for some weeks previously employed on a boat with a gault gang, engaged in the work of mending the banks of the river, where only river water was available for the gang for drinking purposes.

One case occurred during February at Pymore. Investigation elicited a doubt as to the diagnosis of this case, there having been a history of antecedent illness of another character, for which the patient had been treated at Addenbrooke's Hospital, Cambridge ; nevertheless the water supply gave distinct evidence of excremental pollution.

One case occurred (August 2) at Wentworth ; no cause could be ascertained, and the sanitary conditions were satisfactory.

One case occurred (September 10) at Stretham ; in this case also there was no ascertainable cause, but there have been cases in this village during previous years.

Choleraic
Diarrhoea.

On July 5, a fatal case of Choleraic Diarrhoea occurred at a public house near Sutton ; the patient (accompanied by a friend) had come from Scotland to purchase horses and had been to the town of Chatteris and several villages in the neighbourhood, and had an attack of vomiting and diarrhoea at an inn at Witchford. On the journey thence to Sutton he was seized with cramps by the roadside and taken to a roadside inn, where he was seen by two medical men ; he died there in a state of collapse on Sunday morning, July 7, at 6 o'clock. There were no details forthcoming to account for the sudden attack of illness ; he himself attributed it to a supper which he had had on Thursday, the 4th, at Chatteris, but no information could be obtained as to the items which constituted the meal. Everything likely to retain and convey infection were either disinfected or destroyed.

School Closure.

School closure and particular School exclusion, isolation as far as practicable and thorough disinfection under the superintendence of the Inspector, were the precautionary measures adopted in all the above instances.

Several children were excluded from the Black Horse Drove School on account of a contagious skin disease.

WATER SUPPLY.

Haddenham.

A petition for a Public Water Supply was received from the inhabitants of Mill Road, by the Parish Council of Haddenham, and transferred by them to the Rural District Council for their information and consideration. The District Council instructed their Inspector of Nuisances to make a local inquiry into the circumstances and report the result. He accordingly visited Mill Road and found that the majority of the inhabitants had wells on their premises, which, in his opinion, required in some instances cleansing, and in others deepening. In a few instances where there was no water supply on the premises he reported that the owners could obtain a supply, within or at the statutory cost, by sinking wells, whereupon the cleansing and deepening of existing wells was on order carried into effect, and the new wells required have in most instances been already made.

In regard to the water supply at Witchford, no results have yet followed the appointment of a Committee to select a suitable spot for a public well; it is to be hoped that some feasible plan may be devised during the current year.

The same remarks apply to the case of Stretham; it is to be hoped that this Committee will devise some feasible plan during the year, or failing action on their part, it is to be hoped that the District Council will do something in both instances.

Once more I have to repeat my recommendations for a better supply for the centre of the village of Sutton, in view of the known excremental pollution of the gravel bed from which this supply is obtained.

A proposal was made, after an inspection by the Medical Officer of Health and the Inspector of Nuisances, with regard to the supply at Headly Lane, Witcham, that a private well next Spooner's property, which the owner was prepared to hand over to the District Council as a Public Supply, on condition that the proposals of the Medical Officer of Health, stated below, be carried out at the expense of the District Council, viz.: that the well should be deepened to 16ft., and after removal of the old bricks, should be lined with new bricks steined with cement, and the exterior puddled with clay to the thickness of 9 inches from the present frame to a depth of 5ft. at least, also that the well should be domed over and fitted with a 4ft. frame pump, with 4in. barrel and 1½in. pipe, properly cased and fenced, and the construction of a gulley for waste water; and lastly, that the possible source of pollution to the well, viz.: the privy pit to the house adjoining, should be filled up with clean brick rubbish and a pail closet substituted:—whereupon the Parish Council suggested they be allowed to deepen the well and remove the old bricks and puddle with 9in. clay where necessary. On examination it was thought unnecessary to remove the old bricks, but the other part of the works suggested were completed by the end of the year.

In consequence of the case of tyhoid fever at Sherwood Cottages, Silt Road, Littleport, adverted to above, attention was again directed to the water supply of the Public Pump, which is fed by a filter at Quay Hill at the other end of Silt Road, and in order to test the quality of the water at the source and after passing the filter, two samples of water were taken, one from the source and the other from

the pump, and both found to be chemically impure and unfit for drinking purposes. The Inspector of Nuisances examined the well at Quay Hill, and recommended that a reservoir be built in place of the present well, that the pipes connecting this well with the pumps be taken up, examined and relaid with cement joints, and that a reservoir be made to each pump supplied from the well above referred to.

The water supply to a group of ten houses, five in City Road and five parallel to them in Victoria Street, with gardens intervening, was the subject of enquiry in May. There are three underground rain water tanks to each row of five houses; in City Road, the water in the tank supplying No. 5 was quite black; that supplying Nos. 3 and 4, discoloured; and that supplying Nos. 1 and 2, tolerably clear. At Victoria Street, the one supplying No. 5, was discoloured; the one supplying Nos. 3 and 4, was nearly empty and had a deposit of mud at the bottom, and in that belonging to Nos. 1 and 2, the water was clear. It was ordered that the tanks in each case should be cleansed and the water again examined.

Eleven certificates have been applied for under the Public Health (Water) Act, 1878, sec. 6, and granted by the Authority.

Parish ponds. Parish ponds have been cleaned out at Coveney, Witchford, Sutton, Haddenham, Stretham, Thetford, Littleport and Downham.

DRAINAGE IMPROVEMENTS.

Haddenham. With regard to drainage improvements at Haddenham, a new drain of 12in. glazed pipes, about 2 chains in length, for sewer extension, has been laid from near the Railway; also from High Street, another 12in. glazed pipe drain, 2 chains in length, has been laid.

Witchford. At Witchford, a 6in. glazed pipe drain, 7 chains in length, has been laid at the east end of the village and made to empty into a brick culvert.

Littleport. At Littleport a new 9in. glazed pipe drain of about 105 chains length has been laid, as a sewer extension, and independent of the existing 15in. sewer, from Black Lake Bridge, and made to empty into the "Zump"; also about 154 chains of 15in. glazed pipes have been laid from Punt's Hill to the neighbourhood of the Gas Works, where it joins the old brick culvert. House connections have been made along the line of both these new sewers. A manhole has been made at

Punt's Hill, at the junction of the 9in. with the 15in. sewer. Two manholes have been made, one at Thoro'fare Yard, and the other at Factory Street. The sewer between these manholes has been cleaned out and six caneholes with covers constructed.

At the ten houses in City Road and Victoria Street, mentioned in connection with Water Supply, complaints having been made as to a nuisance from the privy vaults, which were situated against the outside of the kitchen walls, of only $4\frac{1}{2}$ in. brick work ; an order was made by the Council for the erection of detached closets at a distance from the houses, and the necessary works have been commenced.

In consequence of (1) the recurrence of epidemic illness in the ^{Sutton.} village of Sutton, and (2) the pollution, by excremental matter, of the gravel cap underlying the village, which is the natural source of all the water supply, I have ventured from time to time to direct attention to the necessity of providing some general system of excrement disposal for this populous village. In consequence of a representation made by the newly constituted Parish Council, early in the year, in regard to the question of drainage, I presented a special report on the 15th April for communication to the Rural District Council, in which, after reciting shortly the existing sanitary conditions, I recommended that any works the Rural District Council decided upon, should be carried out, under their direction, by a competent engineer, and indicated the general lines on which any scheme should be formulated, as set out in the following extracts of my report.

“The conditions to be obviated in any approved scheme are (1) the flooding of certain low lying parts of the village ; (2) the disposal of sewage into open and improper channels ; (3) the retention of liquid excremental matter within the curtilage of dwelling houses ; (4) the retention of house refuse and other solid excreta in the same way.

“The only obvious remedy for the first three conditions is that the High Street, which roughly runs along the ridge of the high ground, should be sewered, either in its whole length continuously, or in sections, as any engineer who may be consulted may advise, and junctions carried down the lanes into the valley to an intercepting sewer, which should collect the whole of the sewage and convey it to the west end of the village for ultimate disposal on land or for chemical treatment ; the drainage of the east end of the village, where the lanes do not exist, would probably have to be dealt with by a

supplementary sewer which would join the main intercepting sewer at a convenient point ; but this is really a question for the engineer. The fourth condition could be best obviated by the establishment of a regular system of scavengering.”

The general question has been exhaustively debated in several communications which have passed between the District Council and the Parish Council respectively. The Parish Council appeared to be disposed at one time to limit their efforts to the disposal of storm water, but after an inspection of the village by a joint committee of the District and Parish Councils respectively, it appeared to all persons interested in the matter that such a measure would be inadequate for the needs of the village ; whereupon, a resolution was adopted by the District Council, stating its opinion that a better system of drainage than is obtained is necessary, and that the necessary works might be done in sections, so as to spread the expense over a period of time, but that the matters stated shortly in the following abstract of the report, are of urgency, and should be undertaken with as least possible delay, and that plans of the proposed new drains and other alterations should be made and levels taken where necessary by a competent engineer or surveyor. *Abstract of Report:—*

A new sewer with cement joints to be laid from Gimbert's Cottages to the bottom of Blake's Garden, and two sections of sewers along the rows. The existing sewers and drains to be extended in the following lanes : Windmill Lane, Painter's Lane and Red Lion Lane. Surface water drains and gulley traps to be provided where necessary, and a storm over-flow at Painter's Lane. Several street gulleys in the High street near the top of the Lanes are to be trapped. An open ditch in Oates' lane, which receives a private covered drain, to be cleared out ; several privy and midden pit nuisances to be abated and earth closets substituted. It was also recommended that all the new sewers be properly ventilated.

During the current year an engineer has been appointed, in accordance with the above resolution.

UNHEALTHY DWELLINGS.

Housing of
the Working
Classes Act.

The four houses at Little Lane, Littleport, mentioned in last year's report, as having been represented under the Housing of the Working Classes Act, have been pulled down by the owner.

The dilapidated and dangerous house at Bell's Drove, previously reported, still remains occupied owing to the difficulty experienced in evicting the tenant.

The houses at Wilburton, reported last year as having been evacuated, after being represented under the Housing of the Working Classes Act, have since been demolished.

A house in Pool Drove, Littleport, represented during the year as being dilapidated and otherwise unfit for human habitation, has ceased to be occupied and is now in process of re-construction.

The premises in Globe Street and Jordan's Yard adjacent, reported to the Council in October, have been vacated, but no structural alterations have been made, as it is not intended to use them any longer as dwellings.

OVERCROWDING.

Cases of overcrowding, reported at Haddenham and Stretham respectively, have been satisfactorily abated by the removal of some members of each family.

Two cases of overcrowding have been reported at Littleport ; one has been satisfactorily abated by the removal of the family to a larger house, and the other by the removal of some members of the family.

Appended hereto are the usual tabular statements of population, births, deaths and sickness, and the Inspector of Nuisances' table on the sanitary work of the year.

BUSHELL ANNINGSON.

Table of Deaths during the year 1895, in the Rural Sanitary District of Ely; classified according to Diseases, Ages, and Localities.

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside district among persons belonging thereto.

Union Workhouse.

Addenbrooke's Hospl.

Fulbourn Asylum.

TABLE B.

Table of Population, Births, and of New Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health, during the year 1895, in the Rural Sanitary District of Ely; classified according to DISEASES, AGES and LOCALITIES.

NAMES OF LOCALITIES adopted for the pur- pose of these statistics: Public Institutions be- ing shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	(d)	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.												
	CENSUS 1891.	(b)			(c)	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	FEVERS.					Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	12	13							
										Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.																
Haddenham	3447	104	Under 5 5 upwards	1	2	3	4	5	6	7	8	9	10	11	12	13	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	12	13	
Sutton	3248	75	Under 5 5 upwards	..	1	1	..	..	1	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Littleport... ..	4239	129	Under 5 5 upwards	..	1	7	..	..	1	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Downham... ..	1873	55	Under 5 5 upwards	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	12807	363	Under 5 5 upwards	..	2	8	1	..	10	..	..	..	1	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..

NOTE.—“Notification of Infectious Disease” has been compulsory in the District since 1st August, 1890. There is no Isolation Hospital for the use of the District.

SUMMARY OF INSPECTOR OF NUISANCES' REPORT FOR THE YEAR 1895.

1.	Accumulations of filth removed	...	...	...	90
2.	Houses in a bad state of repair reported and in most instances satisfactorily dealt with	...	...	...	19
3.	Yards to dwellings in an offensive state cleaned	...	...	...	70
4.	Privy nuisances, foul, &c. remedied	...	...	...	79
5.	Privies new, and removed, vault filled up and converted into earth closets	...	...	...	47
6.	Animals kept in an offensive state removed	...	...	...	43
7.	Overcrowding, cases of, abated	...	...	...	4
8.	Water supply deficient and impure, &c.	...	...	...	12
9.	Samples of water taken to County Analyst	...	...	...	2
10.	Wells closed	...	...	...	0
11.	Cases of infectious and contagious diseases visited and supplied with disinfectants	...	...	...	30
12.	Schools closed—Coveney	...	...	...	1
13.	Houses disinfected by Inspector	...	...	...	18
14.	Drainage nuisances ; drains repaired and new supplied	...	...	...	82
15.	Foul ditches cleaned out	...	...	...	53
16.	New gulleys to drains	...	...	...	43
17.	Street drains trapped	...	...	...	12
18.	Parish ponds cleaned out	...	...	...	14
19.	New parish pumps	...	...	...	1
20.	Parish pumps repaired	...	...	...	20
21.	New houses erected	...	...	...	11
22.	Certificates granted under sec. 6 of Public Health (Water) Act, 1878	...	...	...	11
23.	Lodging houses registered	...	...	...	1
	Bakehouses, slaughterhouses, visited	all throughout district			
	Holmes lode, water supply	...	...	...	cleared
	Black Bank sewer drains	...	...	...	roded twice
	New slaughter houses	...	...	...	1
	Haddenham.	2 chains 12in. sewer extended near Railway Station.			
	„	2 „ 12in. „ „ from High Street.			
	Witchford	7 „ 6 in. „ „ from New East End.			
	„	4½ „ 6 in. „ „ from West End, near Mr. J. Wallis.			
	Littleport.	105 chains 9 in. sewer extended Black Lake Bridge to outlet.			
	Littleport.	154 chains 15 in. sewer extended Pont's Hill, near Gas Works.			
	1	Man hole, Pont's Hill.			
	2	„ „ City Road.			
		Sewer cleaned out and Caneholes put in.			

W. GREEN,
Inspector of Nuisances.

